

In the Claims:

Please amend claims 1 and 20. Please add new claim 21. The claims are as follows:

1. (Currently amended) A transport demultiplexor, the transport demultiplexor selectively receiving a transport stream, the transport demultiplexor delivering transport stream data to a data unloader, and wherein the transport demultiplexor includes a string comparator, the string comparator comparing transport stream data from the data unloader to at least a portion of the a compare value filter and storing a destination address of the transport stream data when the compared transport stream data matches the at least a portion of the compare value filter.
2. (Original) The transport demultiplexor of claim 1 wherein the string comparator includes a compare register, wherein the compare register stores the at least one compare value filter
3. (Original) The transport demultiplexor of claim 2 wherein the compare register receives the compare value filter from a system processor.
4. (Original) The transport demultiplexor of claim 2 wherein the compare register stores a plurality of compare value filters, with each of the compare value filters compared to transport stream data corresponding to a different memory queue.
5. (Original) The transport demultiplexor of claim 1 wherein the string comparator includes a masking register and wherein the masking register includes at least one masking filter, wherein

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the at least one masking filter determines the at least one portion of the compare value filter that is compared to the transport stream data.

6. (Original) The transport demultiplexor of claim 5 wherein the masking register receives the at least one masking filter from a system processor.

7. (Original) The transport demultiplexor of claim 1 wherein the string comparator includes an address register and wherein the address register stores the destination address of matching transport stream data.

8. (Original) The transport demultiplexor of claim 7 wherein the address register stores a plurality of destination addresses in a first-in-first-out buffer.

9. (Original) The transport demultiplexor of claim 1 wherein the transport stream comprises an MPEG-2 transport stream.

10. (Original) The transport demultiplexor of claim 1 wherein the string comparator notifies a system processor when the compared transport stream data matches the at least a portion of the compare value filter.

11. (Original) A transport demultiplexor for receiving a transport stream, the transport demultiplexor comprising:

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- a) front end logic;
- b) a packet buffer;
- c) a video unloader;
- d) a data unloader;

e) an audio unloader, and wherein said front end logic receives the transport stream and delivers the transport stream to the packet buffer, and wherein said packet buffer delivers selected transport stream video data to the video unloader and selected transport audio data to the audio unloader, and wherein the said packet buffer delivers other transport stream data to the data unloader for delivering to system memory; and

f) a string comparator, the string comparator including:

- i) a compare register, the compare register storing at least one compare value filter;
- ii) a masking register, the masking register designating at least a portion of the compare value filter;
- iii) an address register; and

wherein the string comparator compares the other transport stream data from the data unloader to the designated at least a portion of the compare value filter and stores a destination address of the other transport stream data at the address register when the compared other transport stream data matches the designated at least a portion of the compare value filter.

12. (Original) The transport demultiplexor of claim 11 wherein the compare register receives the compare value filter from a system processor.

13. (Original) The transport demultiplexor of claim 11 wherein the compare register stores a plurality of compare value filters, with each of the compare value filters compared to system data corresponding to a different memory queue.

14. (Original) The transport demultiplexor of claim 11 wherein the masking register receives the at least one masking filter from a system processor.

15. (Original) The transport demultiplexor of claim 11 wherein the address register stores a plurality of destination addresses in a first-in-first-out buffer.

16. (Original) The transport demultiplexor of claim 11 wherein the front end logic includes a bypassable packet parser, the bypassable packet parser receiving a first and second type of transport stream from the bypassable synchronizer, the bypassable packet parser filtering the first type transport stream data before passing to the packet buffer, the bypassable packet parser delivering second type transport stream data to the packet buffer without filtering.

17. (Original) The transport demultiplexor of claim 11 wherein the data unloader includes a queue control, said queue control controlling storage location of said first transport stream system data in system memory.

18. (Original) The transport demultiplexor of claim 11 wherein the transport stream comprises an MPEG-2 transport stream.

19. (Original) The transport demultiplexor of claim 11 wherein the string comparator notifies a system processor when the compared other transport stream data matches the designated at least a portion of the compare value filter.

20. (Currently amended) A transport demultiplexor for receiving a MPEG-2 transport stream, the transport demultiplexor comprising:

- a) a packet buffer;
- b) front end logic, the front end logic selectively receiving the MPEG-2 transport stream and the an alternative transport stream, the front end logic comprising:
 - i) a bypassable synchronizer, the bypassable synchronizer receiving the MPEG-2 transport stream;
 - ii) a bypassable packet parser, the bypassable packet parser selectively receiving the MPEG-2 transport stream, wherein the packet parser retrieves identification information from transport stream packets, and wherein the packet parser retrieves identification information from the MPEG-2 transport stream and appends packet identification from the retrieved identification information to the MPEG-2 transport packets, the appended packet identification used identify the MPEG-2 transport stream packets as video packets, audio packets or system data packets;
- c) a video unloader, the video unloader receiving selected MPEG-2 video packets from the packet buffer;
- d) an audio unloader, the audio unloader receiving selected MPEG-2 audio packets from the packet buffer;

c) a data unloader, the data unloader receiving MPEG-2 system data packets and other transport stream data packets, the data unloader delivering the MPEG-2 system data packets and other transport stream data packets to system memory as system memory data for processing; and

f) a string comparator, the string comparator including:

- i) a compare register, the compare register storing at least one compare value filter;
- ii) a masking register, the masking register designating at least a portion of the compare value filter;
- iii) an address register; and

wherein the string comparator compares system memory data from the data unloader to the designated at least a portion of the compare value filter and stores a destination address of the system memory data at the address register when the compared system memory data matches the designated at least a portion of the compare value filter.

21. (New) The transport demultiplexor of claim 20, wherein the bypassable synchronizer and the bypassable packet parser forward the alternative transport stream to the packet buffer without performing synchronization or filtering of the alternative transport stream, said transport demultiplexor further comprising:

means for loading the alternative transport stream into the system memory from the packet buffer; and

means for performing real time filtering of the alternative transport stream in the packet

buffer before loading the alternative transport stream into the system memory from the packet
buffer.